

Notice of Allowability

Application No.

09/992,893

Examiner

Kaveh Abrishamkar

Applicant(s)

KELLEY ET AL.

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Requet for Continued Examination (RCE) filed on 12/07/2005.
2. ☒ The allowed claim(s) is/are 1-3, and 5-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 02/20/2006.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

CEL
Primary Examiner
02/20/06

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Michael Whitham (Registration No. 32,635) on February 20, 2006.
3. The application has been amended as follows:

Claim 1 (Currently Amended):

A method for altering a password and securing an electronic device, comprising the steps of:

concatenating one or more scan chains to create a storage element;
connecting the storage element to a comparator within an electronic circuit wherein an output of the comparator enables a system component;
receiving a password from a user which becomes an original security id code;
configuring one or more said scan chains to customize the storage element which represents said original security code id code by blowing electronic fuses; and

comparing a subsequent password entered by the user to the original security id code wherein the comparator output enables a system component essential for device operation; wherein the system component comprises one or more of the following:

- a) a scan chain required for operation;
- b) a phase lock loop required for operation; and
- c) a system clock or clock distribution tree required for operation; and

writing an update code over the original security id code to create a new security id code, whereby the new security id code is an OR-function product of the original security id code and the update code.

Claim 18 (Currently Amended):

A secure electronic device with an alterable, fuse-encoded password, comprising:

a scan chain which is configured using electronic fuses to represent an original security id code;

a comparator that compares a password entered by a system user to the original security id code;

[an output of the] wherein the comparator output enables a system component essential for device operation; wherein the system component comprises one or more of the following:

- a) a scan chain required for operation;
- b) a phase lock loop required for operation; and

c) a system clock or clock distribution tree required for operation; and
a fuse programmer for creating a new security id code by programming the fuses according to an update code, wherein the new security id code is an OR-function product of the original security id code and the update code.

Allowable Subject Matter

4. The following is an examiner's statement of reasons for allowance:

The above mentioned claims are allowable over prior arts because the CPA (Cited Prior Art) of record fails to teach or render obvious the claims limitations in combination with the specific added limitations, as recited in independent claims 1, 10 and 18, as shown above, and subsequent dependent claims.

The CPA does not teach or suggest a method, system or apparatus for securing an electronic device by creating a system security id code by blowing electronic fuses, and comparing a password input by a user to the system security id code to enable a system component essential for device operation, wherein the system component comprises one or more of a scan chain required for operation, a phase lock loop required for operation, and a system clock or clock distribution tree required for operation.

The present invention addresses the following drawbacks of prior art security mechanisms:

1) the unauthorized use or theft of electronic equipment.

Thus this invention provides a means to secure electronic equipment from unauthorized use by rendering the electronic equipment inoperable if stolen or accessed without the correct password. The password is created by an input by a user, which customizes a concatenation of scan chains by blowing electronic fuses. This password can be changed by a fuse programmer, which uses an OR-function product of the original security id with a update code to create a new password. A user must then enter a password that is compared to the stored system security id code to enable a system component essential for device operation. This provides a method to secure an electronic device by requiring a password, which matches the stored password created by blowing electronic fuses.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaveh Abrishamkar whose telephone number is 571-272-3786. The examiner can normally be reached on Monday thru Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KA
02/20/2006

CU
Primary Examiner
AU 2131
2/21/06